

Final Response to Referee 2 report for ESurf-2021-71

[1] Title: the title is still a bit confusing (and long). Here you have some issues which are missused in the title that need revisions. Also, check their use throughout the text (e.g. abstract, introduction, discussion, conclusions).

AC1) The title is now revised from

“Analytical approach for beach flanking downdrift of natural groin: Case study of Jeongdongjin Beach, Korea”
to read as

“**An analytical model** for beach **erosion** downdrift of **groins**: Case study of Jeongdongjin Beach, Korea”

(Words in bold-face highlight the change.)

[1.1] "Flanking" is a term that it is usually, if not always, employed when describing the excess of erosion downdrift seawalls and revetments. Its use in the context of the paper will be confusing for most of readers. It will be much simpler to use something like "downdrift erosion" or similar.

AC1.1) As suggested, we apply the term “downdrift erosion” to replace the original “beach flanking” throughout the context (e.g. abstract, introduction, discussion, conclusions).

To avoid the likely confusion among the readers in using “beach flanking”, which has occurred most commonly at downdrift of seawalls and revetments, but also downdrift of groins (as studies in this paper), we apply “beach erosion” or “downdrift erosion” in this paper when addressing the problem of erosion downdrift of groin.

[1.2] I think that authors misuse the term "Analytical approach". I assume that they are referring to the use of an analytical model to simulate shoreline erosion. However, this is not "analytical approach".

AC1.2) As suggested, we now use “An analytical model” rather “analytical approach” in the title and the context.

[1.3] Is the model only applicable to "natural groins"? I presume that not.

AC1.3) As suggested, we revise the “natural groin” to read as “groins” in title.

[1.4] A possible option could be something like "An analytical model for shoreline development downdrift of groins". You do not need to use this, but please select a more appropriate text than the current one.

AC1.4) Thanks for the suggestion. As shown in AC1 above, the title now reads as:

“An analytical model for beach erosion downdrift of groins: Case study of Jeongdongjin Beach, Korea”

[2] Section 3: change the name to simply "Wave and shoreline data"

AC3) Thanks. We have revised the heading as suggested. [Line 214]

[3] Section 4: change the name to just "Results"

AC4) Thanks. We have revised the heading as suggested. [Line 279]

[3.1] I suggest to remove the subheadings 4.1 and 4.2 to present the results. Include a first sentence where you describe what results you are going to present in the chapter. State that, first, you are going to compare the performance of the analytical model with respect to the numerical model and, then the model results are compared with shoreline data.

AC3.1) Thanks for suggestions.

We have deleted the subheadings 4.1 and 4.2, and append a sentence at the beginning of section 4 to describe the proposed comparisons in the section, such as: [Line 280-281]

In this section, the performance of the analytical model is verified by comparing not only the numerical model

but also the shoreline data.

[3.2] Avoid to introduce new formulas or methods here. (e.g. eq 20 and 21). They should have been introduced in section 2.

AC3.2) As suggested, we relocate Eqs. (20) and (21) and relevant method to the end of section 2. [Line 202-213]

[4] Section 5: change the name to "Discussion"

AC5) Thanks. We have revised the heading as suggested. [Line 312]

[5] Section 6: change the name to "Conclusions"

AC6) Thanks. We have revised the heading as suggested. [Line 358]